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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,053	02/09/2004	Jason B. Stark	2070/5	8982
27774	7590	09/29/2006	EXAMINER	
MAYER & WILLIAMS PC 251 NORTH AVENUE WEST 2ND FLOOR WESTFIELD, NJ 07090			SINGH, DALZID E	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/775,053	Applicant(s) STARK, JASON B.	
	Examiner Dalzid Singh	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some * c) ☐ None of:
 - 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the controller as recited in claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites, "filtering a binary electrical drive signal to produce a unit modulation pulse spanning four-bit-periods..." As originally filled, on paragraph [0045], the specification discloses three-level filter converts the received binary signal received on line to a three-level signal. The specification does not disclose how the filter produces modulation pulse spanning four-bit-periods. Does the three-level signal produced by the filter inherently correspond to modulation pulse spanning four-bit-periods? Therefore, based on this, the specification fails to provide an enabling disclosure for claim 1.

Claim 1 recites, "adjusting one or more of the three parameters of the unit modulation pulse..." As originally filled, the specification does not provide structure or circuit diagram to teach a person of ordinary skill method of adjusting one or more of

the three parameters of the unit modulation pulse. Therefore, based on this, the specification fails to provide enabling disclosure for claim 1.

Claim 6 recites, "a controller coupled to the filter" As originally filled, the specification does not provide structure or circuit diagram to teach a person of ordinary skill how the controller is to be coupled to the filter. Therefore, based on this, the specification fails to provide enabling disclosure for claim 6.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "...describable by three parameters;" The specification and/or claims does not define the three parameters. Therefore, based on this claim 1 is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ono et al (US Patent No. 6,097,525).

Regarding claim 5, Ono et al disclose optical transmitter comprising:

an input for receiving binary electric drive signal (the binary signal is shown as DATA signal);

a filter (FILTER) for filtering binary electrical drive signal describable by three parameters (see Fig. 1 and col. 1, lines 35-42; the three parameter are disclosed as three levels);

a modulator coupled to the filter to receive a filtered three-level electrical drive signal (see Fig. 1 and col. 1, lines 35-42; the three parameter are disclosed as three levels).

Regarding claim 6 (as far as understood in view of the 112 paragraph), the filter varying the unit modulation pulse to further enhance the transmission performance in accordance with optimization criteria.

Regarding claim 7, where the optimization criteria include the minimization of dispersive impairments penalties in transmitter performance (in designing optical

communication system, it is well known to minimize dispersion impairments).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al (US Patent No. 6,097,525).

Regarding claim 1 (as far as understood in view of the 112 paragraph), Ono et al disclose optical transmitter comprising:

filtering binary electrical drive signal describable by three parameters (see Fig. 1 and col. 1, lines 35-42; the three parameter are disclosed as three levels);

adjusting one or more of the three parameters of the unit modulation pulse (by filtering the signal parameters of the signal is adjusted);

generating a three level drive signal for input to the Mach-Zehnder modulator (see Fig. 1 and col. 1, lines 35-42; the three parameter are disclosed as three levels).

Ono et al differ from this claim in that Ono et al do not specifically disclose that the pulse spanning four-bit-periods. However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to provide the pulse to span four-bit-periods.

Regarding claim 2, Ono et al differ from this claim in that Ono et al does not specifically disclose that the three parameters are each defined over a half-bit period. However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to define the three parameters in half-bit period.

Regarding claim 4, as shown in Fig. 1, Ono et al shows filter in order to enhance performance of the transmission system.

Allowable Subject Matter

10. Claim 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miyamoto et al (US Patent No. 6,865,348) is cited to show optical transmission system.

Mauro et al (US Patent No. 6,721,081) is cited to show variable duty cycle optical pulse.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DS
September 27, 2006

Dalzid Singh